

IN THE CLAIMS:

Claim 1 (Currently Amended): A light guide for a surface light source device[[,]] having a plate-like shape,~~which~~ that guides light emitted from a point primary light source, comprising: and which has

a light incident end surface ~~for receiving~~ to receive [[the]] light from the primary light source; [[and]]

an elongated lens forming surface to spread light received from the light incident end surface, the elongated lens forming surface includes a plurality of elongated concave/convex structures arranged substantially in parallel to each other and extend substantially along a direction of directivity of light, wherein a plurality of micro regions defined over a specific number of the plurality of elongated concave/convex structures in cross section thereof, wherein

a distribution of the micro regions having the inclination angle between 20° and 50° is more than 10% over all micro regions in the vicinity of the primary light source, such that the inclination angle is formed by a tangent to each micro region and is defined in an absolute value; and

a light outputting surface ~~for outputting~~ to output the guided light having a light outputting functional structure[[,]] wherein

~~a plurality of elongated concave/convex structures extending substantially along a direction of directivity of the light which has entered the light guide in a plane along the light outputting surface and arranged substantially in parallel to each other are formed on one of the light outputting surface and a back surface on an opposite side and, at least in the vicinity of the~~

~~primary light source, a shape of a section of the plurality of elongated concave/convex structures in a plane perpendicular to extending directions thereof is such that an existence proportion of angle components of 20° or more and 50° or less of an absolute value of an inclination angle formed by a tangent in each micro area with an elongated concave/convex structure forming surface is 10% or more.~~

Claim 2 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein each of the elongated concave/convex structures is an elongated lens, and ~~the plurality of elongated concave/convex structures are constituted of~~ a plurality of repeatedly arranged elongated lenses having substantially the same shape form the elongated concave/convex structures.

Claim 3 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein a part of the surface or ~~all of the~~ an entire surface of each of the elongated concave/convex structures is roughened.

Claim 4 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein for any inclination angle α° degrees in a range between 0° and 80° , a distribution of the micro regions having an inclination angle between α° and $\alpha^\circ+10^\circ$ is less than 60% over all the micro regions in the vicinity of the primary light source ~~existence proportion of angle components of α° or more and $\alpha^\circ+10^\circ$ or less in the absolute value of the inclination angle is 60% or less with respect to all angles α° of 0° or more and 80° or less at least in the vicinity of the primary light source~~

Claim 5 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein a region A is defined in the vicinity of the primary light source on the elongated lens forming surface ~~the elongated concave/convex structure forming surface has a region A which is positioned in the vicinity of the primary light source and in which the elongated concave/convex structures are formed, and a region B is defined next to which is positioned in the vicinity of the region A in the direction away from the primary light source and in which the elongated concave/convex structures are formed, and such that~~ a sectional shape of the region A is different from that of the region B.

Claim 6 (Currently Amended): The light guide for the surface light source device according to claim 5, wherein a distribution existence proportion of the micro regions having an inclination angle components between ~~[[of]]~~ 30° or more and 50° or less in the absolute value of the inclination angle in the region B is smaller in the region B than that of in the region A.

Claim 7 (Currently Amended): The light guide for the surface light source device according to claim 5, wherein ~~a valley portion~~ the inclination angle formed in a valley portion of the elongated concave/convex structures ~~formed~~ in the region B is smaller than that of the ~~elongated concave/convex structures formed~~ in the region A.

Claim 8 (Currently Amended): The light guide for the surface light source device according to claim 5, wherein ~~[[a]]~~ shape of the elongated concave/convex structures gradually changes from the region A formed in to the region B gradually changes depending on a position.

Claim 9 (Currently Amended): The light guide for the surface light source device according to claim 5, wherein the region B is formed in an entire remaining portion of the elongated lens forming surface ~~a part or all of an end portion of an effective light emitting region in the vicinity of the primary light source.~~

Claim 10 (Currently Amended): The light guide for the surface light source device according to claim 5, wherein substantially all of the elongated concave/convex ~~structure~~ structures formed on the elongated lens forming surface are provided in ~~except the region A is~~ the region B.

Claim 11 (Original): The light guide for the surface light source device according to claim 5, wherein the region B is formed in a band shape.

Claim 12 (Original): The light guide for the surface light source device according to claim 5, wherein the region B is formed in an island shape.

Claim 13 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein a distribution existence proportion of the micro regions having an inclination angle between 35° and 60° is in a range between 4% and 55% over all the micro regions ~~angle components of 35° or more and 60° or less in the absolute value of the inclination angle is 4% or more and 55% or less, or a distribution existence proportion of the micro regions having an inclination angle less than 15° is in a range between 25% and 85% over all the micro regions~~ ~~angle components of 15° or less in the absolute value of the inclination angle is 25% or more and 85% or less at least in the vicinity of the primary light source.~~

Claim 14 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein ~~a the sectional~~ shape of all or ~~[[a]]~~ part of the elongated concave/convex structures ~~is constituted of~~ include an outwardly convex curved line.

Claim 15 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein ~~a the sectional~~ shape of all or ~~[[a]]~~ part of the elongated concave/convex structure ~~is constituted of~~ structures include an outwardly concave curved line.

Claim 16 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein ~~a the sectional~~ shape of all or ~~[[a]]~~ part of the elongated concave/convex structure ~~is constituted of~~ structures include a curved line having an outwardly convex region and an outward concave region.

Claim 17 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein ~~a the sectional~~ shape of all or ~~[[a]]~~ part of the elongated concave/convex structure ~~is~~ structures include a substantially polygonal shape.

Claim 18 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein ~~a the sectional~~ shape of all or ~~[[a]]~~ part of the elongated concave/convex structure ~~has~~ structures have a shape ~~in which~~ where a straight line is combined with a curved line.

Claim 19 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein ~~in the elongated concave/convex structure forming surface~~, a first region ~~in which~~ where the elongated concave/convex structures each having curved line shape are formed as ~~[[the]] first sectional shapes shape are arranged is formed~~ in the vicinity of the primary light source, and a second region ~~in which~~ where the elongated concave/convex structures each having substantially polygonal shapes are formed as ~~[[the]] second sectional shapes are arranged is formed~~ adjacent to the first region.

Claim 20 (Currently Amended): The light guide for the surface light source device according to claim 19, wherein a maximum value of a distribution existence proportion of the micro regions having an inclination angle components of between α° or more and $\alpha^\circ + 10^\circ$ or less ~~in the absolute value of the inclination angle obtained with respect to all α° angles between α° of 0° or more and 80° or less in the second region~~ over all the micro regions is larger in the second region than that of in the first region.

Claim 21 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein the plurality of elongated concave/convex structures is structure forming surface is one obtained ~~in such a manner that~~ by blasting a part or all an entire transfer surface of an elongated concave/convex structure shape transfer surface of a mold is blasted, and ~~the elongated concave/convex structure shape transfer surface is transferred by forming using the mold to form the elongated concave/convex structures shape transfer surface is transferred by forming~~.

Claim 22 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein the plurality of elongated concave/convex structures is structure forming surface is one obtained in such a manner that by polishing a part or ~~all~~ an entire transfer surface of an elongated concave/convex structure shape transfer surface of a mold is polished, and the ~~elongated concave/convex structure shape transfer surface is transferred by forming using~~ the mold to form the elongated concave/convex structures.

Claim 23 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein the plurality of elongated concave/convex structures is structure forming surface is one obtained in such a manner that by etching a part or ~~all~~ an entire transfer surface of a elongated concave/convex structure shape transfer surface of a mold is etched, and the ~~elongated concave/convex structure shape transfer surface is transferred by forming using the~~ mold to form the elongated concave/convex structures.

Claim 24 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein a part or an entire surface of the elongated lens concave/convex structure forming surface has a blast trace from a direct blasting process ~~in a part or all thereof~~.

Claim 25 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein the elongated lens ~~concave/convex structure~~ forming surface is ~~one~~ obtained ~~in such a manner that by a first elongated concave/convex structure shape transfer surface is transferred by forming~~ using a first mold having ~~[[the]]~~ a first elongated concave/convex structure shape transfer surface to ~~obtain a formed~~ shape a material, the first transfer surface to shape a material, ~~obtained by blasting a part or all an entire transfer surface of the material, surface of the formed material corresponding to the first elongated concave/convex structure shape transfer surface is transferred to obtain~~ using a blasted material to shape a second mold having a second elongated concave/convex structure shape transfer surface, and using the second mold to form a plurality of elongated concave/convex structures on the elongated lens forming surface ~~structure shape transfer surface is transferred by the forming using the second mold.~~

Claim 26 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein the light incident end surface ~~is constituted of~~ includes an anisotropic rough surface, and an average inclination angle of the anisotropic rough surface in a lengthwise direction ~~along of~~ the light outputting surface is larger than that in a direction perpendicular to and away from the light outputting surface.

Claim 27 (Currently Amended): The light guide for the surface light source device according to claim 26, ~~wherein in the anisotropic rough surface,~~ the average inclination angle in the lengthwise direction ~~along~~ of the light outputting surface is 3° to 30°, and the average inclination angle in the direction perpendicular to and away from the light outputting surface is 5° or less.

Claim 28 (Currently Amended): The light guide for the surface light source device according to claim 26, ~~wherein in the anisotropic rough surface,~~ a length of a region having an inclination angle of 8° or more ~~with respect to~~ in the lengthwise direction of an anisotropic rough surface ~~forming surface in measurement in a direction perpendicular to the light outputting surface~~ is 5% or less of a total measured length.

Claim 29 (Currently Amended): The light guide for the surface light source device according to claim 26, ~~wherein in the anisotropic rough surface,~~ the surface of an elongated lens extending in a direction perpendicular to and away from the light outputting surface is roughened.

Claim 30 (Cancelled)

Claim 31 (Currently Amended): The light guide for the surface light source device according to claim [[30]] 1, wherein the light outputting functional structure comprises a rough surface or a plurality of substantially mutually parallel elongated lenses ~~formed on at least one of the light outputting surface and the back surface~~, and the elongated lenses substantially extend in a direction of directivity of light ~~which has~~ that entered the light guide or a direction perpendicular to the direction of directivity of light.

Claim 32 (Currently Amended): The light guide for the surface light source device according to claim 31, wherein an average inclination angle of the plurality of elongated lenses is 0.2° to 20° in the direction of the directivity of the light ~~which has~~ that entered the light guide.

Claim 33 (Original): The light guide for the surface light source device according to claim 31, wherein the surfaces of the plurality of elongated lenses are roughened.

Claim 34 (Currently Amended): The light guide for the surface light source device according to claim [[30]] 1, further comprising a component that functions as a ~~wherein the~~ light outputting functional structure and comprises a component in the light guide, whose refractive index is different from that of a main component of the light guide ~~inside~~.

Claim 35 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein when a necessary light spread angle is 100° or more, ~~[[and]]~~ a region where in which the existence proportion a distribution of the micro regions having an inclination angle components of between 30° or more and 50° or less in the absolute value of the inclination angle is more than 10% over all the micro regions or more is formed substantially in all of a region from the light incident end surface to an effective light emitting region ~~[[in]]~~ on the elongated ~~lens concave/convex structure~~ forming surface.

Claim 36 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein a necessary light spread angle is 90° or more and a region in which ~~the existence~~ a proportion of the micro regions having an inclination angle components of between 25° or more and 50° or less in the absolute value of the inclination angle is more than 20% over all the micro regions or more is formed in a part or all of a region from the light incident end surface to an effective light emitting region in the elongated concave/convex structure forming surface.

Claim 37 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein a necessary light spread angle is 80° or more and a region in which ~~the existence~~ a proportion of the micro regions having an inclination angle components of ~~between 25° or more and 50° or less in the absolute value of the inclination angle~~ is more than ~~10% over all the micro regions~~ or more is formed in a part or all of a region from the light incident end surface to an effective light emitting region in the elongated concave/convex structure forming surface.

Claim 38 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein a necessary light spread angle is 70° or more and a region in which a proportion of the micro regions having an inclination angle components of between 20° or ~~more and 50° or less in the absolute value of the inclination angle~~ is more than 10% over all the ~~micro regions~~ is formed in a part or all of a region from the light incident end surface to an effective light emitting region in the elongated concave/convex structure forming surface.

Claim 39 (Currently Amended): The light guide for the surface light source device according to claim 1, wherein a plurality of ~~obliquely~~ elongated lenses-extending in an oblique direction with respect to the direction of the directivity of ~~[[the]]~~ light ~~which has~~ that entered the light guide are formed on the light outputting surface or the elongated lens forming surface in the vicinity of ~~an edge in which~~ of the light incident end surface ~~is formed in the light outputting surface or the back surface.~~

Claim 40 (Original): The light guide for the surface light source device according to claim 39, wherein the obliquely elongated lenses extend in a direction inclined at an angle corresponding to a half of a necessary light spread angle with respect to the direction of the directivity of the light which has entered the light guide.

Claim 41 (Currently Amended): The light guide for the surface light source device according to claim 39, wherein in a shape of a section perpendicular to the extending direction of the obliquely elongated lenses, ~~the existence~~ a plurality of micro regions defined over a specific number of the plurality of obliquely elongated lenses, and a proportion of the micro regions of obliquely elongated lenses having an inclination angle between ~~components of 20° or more and 50° or less in the absolute value of the inclination angle~~ formed by a tangent of each micro region of obliquely elongated lenses with the obliquely elongated lens forming surface is more than 10% over all the micro regions of obliquely elongated lenses ~~or more~~.

Claim 42 (Currently Amended): A surface light source device comprising:

a light guide for the surface light source device, according to claim 1;

the primary light source disposed adjacent to the light incident end surface of the light guide; and

at least one light deflection element disposed adjacent to a light outputting surface of the light guide, the light deflection element having a light entrance surface ~~positioned~~ facing the light outputting surface of the light guide, and a light exit surface on an opposite side, ~~and comprising~~ wherein, a plurality of elongated lenses ~~formed parallel to one another on the light entrance surface of the light deflection element that extending~~ extend in a direction substantially parallel to an incident end edge on which the light incident end surface of the light guide is formed and extending in parallel to one another on the light entrance surface of the light deflection element adjacent to the light guide.

Claim 43 (Currently Amended): The surface light source device according to claim 42, wherein each of the plurality of elongated lenses ~~[[of]]~~ on the light entrance surface of the light deflection element comprises two faces ~~surfaces, and totally reflects the~~ wherein light ~~which has been incident on one of the surfaces~~ faces is totally reflected by the other face ~~surface~~.

Claim 44 (Original): The surface light source device according to claim 42, wherein a light reflection element is disposed facing the back surface of the light guide.

Claim 45 (Currently Amended): The surface light source device according to claim 42, wherein the light incident end surface is formed in one end edge or one corner portion of the light guide.

Claim 46 (Currently Amended): The surface light source device according to claim 45, wherein a plurality of primary light sources are arranged ~~at an interval~~ adjacent to the one end edge or corner portion of the light guide in an interval, and a region ~~in which the existence~~ where a distribution proportion of the micro regions having an inclination angle components of between 30° ~~or more~~ and 50° ~~or less in the absolute value of the inclination angle~~ is more than 10% over all the micro regions ~~or more~~ is disposed in the vicinity of the end edge of the light guide in such a manner that ~~lights~~ light coming from the adjacent primary light sources are superimposed ~~upon~~ over each other in the region.

Claim 47 (Currently Amended): The surface light source device according to claim 45, wherein a plurality of primary light sources are arranged ~~[[at]]~~ in an interval adjacent to the one end edge or corner portion of the light guide, and an average inclination angle of a light outputting functional structure ~~of the light guide in a region~~ at a portion of the one end or corner portion of the light guide that front directly faces ~~surface of~~ the primary light source is different from ~~that in a region~~ a portion between the primary light sources.

Claim 48 (Currently Amended): The surface light source device according to claim 45, wherein a plurality of primary light sources are arranged ~~[[at]]~~ in an interval adjacent to the one end edge or corner portion of the light guide, and ~~[[,]]~~ when only one of the primary light sources is turned on, normal luminance is measured from the one primary light source at an interval of 1 mm in a lengthwise length direction in a region defined at one edge of an effective light emitting region, such that a first side of the region is at 3 mm from the one edge of the effective light emitting region and a second side of the region is at 3.5 mm from the one edge of the effective light emitting region, of a 0.5 mm wide region of 3 mm to 3.5 mm from the edge of an effective light emitting region of the light guide on the side of the light incident end surface, [[and]] a relation between a measurement position and the luminance is plotted~~[[,]]~~ and a half-value full-width distance obtained from the plot is in a range of 0.8 ~~[[time]]~~ to 1.2 times with respect to a distance between the adjacent primary light sources.